

CONTINUATION OF TRIBAL IMPLEMENTATION AND EVALUATION OF A TERRESTRIAL ECOSYSTEM MONITORING PROGRAM

The U.S. Bureau of Reclamation has provided a modest level of funding (\$15,000/year) for each of the five tribes (Hopi, Hualapai, Navajo, Southern Paiute Consortium and Zuni) to evaluate the effects of the operation of Glen Canyon Dam on the historic properties of cultural and religious importance to the individual tribes to achieve compliance with the National Historic Preservation Act (NHPA) under the Programmatic Agreement. There is, however, an equally important need for the tribes to understand the effects of dam operation on resources of cultural and/or religious importance to the tribes even though such resources may not be eligible for the National Register of Historic Places.

To fulfill that need, the Grand Canyon Monitoring and Research Center (GCMRC) has funded each tribe under the Terrestrial Ecosystem Monitoring (TEM) program (approximately \$25,000 per year from 2001 to 2004) to monitor these other resources which may include ethnobotanically important plant resources, wildlife populations, beaches, tributaries and water conditions. The TEM program works to identify trends in the conditions of culturally important resources affected by dam operations, to evaluate the effects of management actions on these resources, and to devise emergency protective measures when needed. Because each tribe has a unique cultural identity, unique traditions, and unique concerns regarding resource properties in the Colorado River corridor, it is more accurate to say that the TEM program encompasses several distinct tribal TEM programs. Tribal TEM programs may include conducting interviews with tribal elders regarding the status of culturally important resources in the Colorado River ecosystem, monitoring the health of those resources, and identifying and/or implementing mitigation actions that may reduce the effects of dam operations on resources of interest to each tribe. The information is compiled in data bases so that trends in resource condition can be tracked through time. The establishment of resource-condition data bases, against which the effects of future management actions can be weighed, is fundamental for a robust Colorado River Ecosystem (CRE) monitoring program.

In FY 2002-2005, funding for this work was administered through the Cultural Program of GCMRC and approved by the Glen Canyon Dam Adaptive Management Workgroup (AMWG) as a component of the Terrestrial Ecosystem Monitoring project. Each year the tribes completed a final report that was submitted to GCMRC and gave an oral presentation to GCMRC. In hindsight, the tribes should have given oral presentations to the Technical Workgroup (TWG) and AMWG as well to let these groups understand the importance of this work. The results of the TEM investigations provided insight into the trends in terrestrial ecosystem resource health that is of great value to the tribes themselves, but also to the Glen Canyon Dam Adaptive Management Program.

Continuation of the tribal TEM programs is of benefit to the entire Adaptive Management Program as it provides a view of resource condition from a unique and historic perspective, thereby allowing for a non-political evaluation of operational impacts that can help provide direction for the Adaptive Management Program. For example, part of the justification for managed flooding is the watering of marsh and riparian resources, which some tribal elders have

complained are dying due to a lack of water. In addition, there are benefits to society as a whole. (These benefits will be detailed in a separate position paper.)

In addition, the Federal Government has a trust responsibility to Indian tribes that includes the management of Indian trust lands and resources to protect and preserve the resources and to promote tribal control and self-determination. 303 DM §2.7. Some of the culturally important resources that may be affected by the operations of Glen Canyon Dam or by activities associated with the Adaptive Management Program are within the boundaries of the Hualapai or Navajo Reservation and as such are Indian trust assets. The trust responsibility applies to federal agencies other than the Bureau of Indian Affairs, particularly office and bureaus within DOI. *See* 303 DM §2.2. Because several federal agencies within the Glen Canyon Dam Adaptive Management Program (AMP) hold a seat on the AMWG, they collectively share this trust responsibility along with Reclamation. In addition, impacts on culturally important resources located on federal lands may affect the health of tribal members (e.g., impacts on medicinal plants). Such impacts invoke the Department of Interior policy “to consult with tribes on a government-to-government basis whenever plans or actions affect tribal trust resources, trust assets, or tribal health and safety.” 512 DM §2.2. Moreover, the underlying purpose of the trust responsibility is to support the right of tribes to exercise self-determination, which includes the preservation of their cultural identities. Many of the resources that may be affected by the Adaptive Management Program are important to the tribes in their efforts to maintain their cultural identities.

We therefore believe that the tribal terrestrial ecosystem monitoring programs constitute a valid and effective means of evaluating the effects of the operation of Glen Canyon Dam on the culturally important resources in the CRE, particularly those actions that are taken based on recommendations from the AMWG. The evaluations of the effects of the actions can only be performed by each tribe itself due to the unique cultural identities of the tribes. Each tribe’s TEM program must be conducted annually because the operations of the dam and the management actions implemented through decisions of the AMWG change on an annual basis.

For these reasons, we believe that sufficient funds should be made available annually within the AMP for the tribes to implement their TEM programs.